

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 November 2004 (04.11.2004)

PCT

(10) International Publication Number
WO 2004/094287 A2

- (51) International Patent Classification⁷: **B66B**
- (21) International Application Number:
PCT/US2004/012420
- (22) International Filing Date: 22 April 2004 (22.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PCT/US03/12266 22 April 2003 (22.04.2003) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— without international search report and to be republished upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELEVATOR SYSTEM WITHOUT A MOVING COUNTERWEIGHT

(57) Abstract: An elevator system (20) includes a cab (22) supported for movement within a hoistway. A plurality of cab-supported sheaves (36, 42) moves with the cab through the hoistway. A first hoistway sheave (38) is located near a first end of the hoistway, and a second hoistway sheave (40) is located near a second end of the hoistway. A load bearing member (30) is provided, which (i) extends from near the first end of the hoistway toward the cab, where the load bearing member is redirected by one of the plurality of cab-supported sheaves toward the first end of the hoistway, (ii) at least partially wraps around each of the first hoistway sheave and the second hoistway sheave, and (iii) extends from near the second end of the hoistway toward the cab, where the load bearing member is redirected by another of the plurality of cab-supported sheaves toward the second end of the hoistway. A tension device (44) maintains tension in the load bearing member.